I am the technical lead for the Center for Neighborhood Technology (CNT), a 25-year-old non-profit organization, on a wireless community networking project in the Chicagoland region that's meant to address the digital divide by providing high-speed Internet access and other networking resources to low-income communities that have been priced out of the broadband market. For these communities, high-speed Internet access is a means of economic development -- job training, finding and connecting with employers, and education. It is unlikely we would be able to deploy these networks and provide this service were it not for unlicensed spectrum use and the innovation that has occurred because of it. We're using IEEE 802.11 radios in the 2.4 GHz and 5.8 GHz bands, and these high-performance, low-cost devices are commodity items thanks to the lack of licensing requirements. CNT supports the efforts of groups like NYC Wireless and the Champaign-Urbana Community Wireless Network (CUWiN) to increase the amount of unlicensed spectrum available for use in community networking projects.

CNT recognizes the need to protect existing licensees in bands where unlicensed use has been opened up. We believe that with current technology, power and frequency can be controlled via software to tune and optimize links that minimize interference and efficiently utilize spectrum. Our experience in the 2.4 GHz band is with low-power devices, and with efficient antenna design and placement as well as an understanding that radios need not be at full power to create solid links, we believe that robust mesh networks can be deployed maximizing coverage for a community but without creating interference for adjacent networks.